IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF LOUISIANA

UNITED STATES OF AMERICA Plaintiff, v. WILLIAMS OLEFINS, LLC, n/k/a NOVA CHEMICALS OLEFINS LLC. Defendant.	)	Civil Action No.

COMPLAINT

The United States of America (United States), by the authority of the Attorney General, and through the undersigned attorneys, acting at the request of the Administrator of the United States Environmental Protection Agency (EPA), files this Complaint and alleges as follows:

NATURE OF THE ACTION

1. This is a civil action brought pursuant to Section 113(b)(2) of the Clean Air Act (CAA), 42 U.S.C. § 7413(b)(2), against Williams Olefins, LLC (Williams), now known as NOVA Chemicals Olefins LLC (NOVA) (Defendant), for violations of CAA Sections 112(r)(1) and 112(r)(7), 42 U.S.C. §§ 7412(r)(1), (r)(7), and the Chemical Accident Prevention Provisions at 40 C.F.R. Part 68 (Chemical Accident Prevention Provisions), at the Defendant's olefins manufacturing plant located in Geismar, Louisiana (NOVA Chemicals Olefins Plant or Plant).

2. On June 13, 2013, the Plant – then operating as the Williams Olefins Plant – experienced an equipment rupture, explosion, and fire (Incident) in the Plant's Propylene Production Unit. The Incident occurred when a Plant employee was attempting to identify why the flow rate of fluids through a large cylindrical tank-like vessel called a "reboiler" had slowed

down. The employee changed the flow of heated water that had been used to cool hot process gases (called *quench water*) from a reboiler that was in use at the time (Reboiler EA-425A) to an adjacent and basically identical offline reboiler (Reboiler EA-425B) that was closed off from its pressure relief system located on top of the adjacent propylene fractionator tower. The influx of heated quench water into Reboiler EA-425B quickly caused the reboiler to over-pressurize and catastrophically fail. The Incident destroyed Reboiler EA-425B and Reboiler EA-425A. The Incident also severely damaged the propylene fractionator tower, and much of the piping systems transiting the Propylene Production Unit, in turn causing a release of thousands of pounds of extremely hazardous substances, including regulated flammable substances. The released substances, including propylene, ethylene, 1,3 butadiene, and propane, ignited, setting off a fire that burned for more than four hours. The Incident resulted in 2 fatalities, 167 injuries, road closures, and an order for persons living and working near the Plant to shelter-in-place.

3. In July 2017, Williams Olefins, LLC was renamed NOVA Chemicals Olefins LLC.

4. Pursuant to CAA Section 113(b)(2), 42 U.S.C. § 7413(b)(2), the United States seeks the assessment of civil penalties based on the Defendant's violations of CAA Section 112(r), 42 U.S.C. § 7412(r), and the Chemical Accident Prevention Provisions.

JURISDICTION AND VENUE

5. This Court has jurisdiction over the subject matter of this action pursuant to 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1331, 1345, and 1355.

6. This Court has personal jurisdiction over the Defendant because the NOVA Chemicals Olefins Plant is located and the Defendant does business within the jurisdictional boundaries for the United States District Court for the Middle District of Louisiana, as established by Congress under 28 U.S.C. § 98(b).

7. Venue is proper in this district pursuant to 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c), and 1395, because it is the judicial district in which the Incident occurred.

NOTICE AND AUTHORITY

8. Notice of commencement of this action has been given to the Louisiana Department of Environmental Quality pursuant to 42 U.S.C. § 7413(b).

9. The United States Department of Justice has the authority to bring this action on behalf of the EPA under 28 U.S.C. §§ 516 and 519, and under 42 U.S.C. § 7605(a).

THE DEFENDANT

10. Defendant Williams Olefins, LLC, n/k/a NOVA Chemicals Olefins LLC, is a Delaware limited liability company licensed to do business in Louisiana. Prior to, and at the time of the Incident, Defendant was the majority owner of the Plant and was the Plant's sole operator.

11. At all times relevant to the Complaint, Defendant has been a "person" as defined in CAA § 302(e), and within the meaning of CAA § 113(b), 42 U.S.C. §§ 7602(e), 7413(b).

STATUTORY AND REGULATORY BACKGROUND

12. The Clean Air Act was enacted to "protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population" 42 U.S.C. § 7401(b)(1).

13. The primary objective of CAA Section 112(r) is to "prevent the accidental release and to minimize the consequences of any such release of any [listed] substance . . . or any other extremely hazardous substance." 42 U.S.C. § 7412(r)(1).

A. CAA Section 112(r)(1) – the General Duty Clause

14. Section 112(r)(1) provides, in pertinent part:

> The owners and operators of stationary sources producing, processing, handling or storing [any substance listed pursuant to CAA Section 112(r)(3), or any other

> extremely hazardous substance] have a general duty . . . to identify hazards which may result from such releases using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases, which do occur.

15. Pursuant to CAA Section 112(r)(3), 42 U.S.C. § 7412(r)(3), the term "extremely hazardous substances" includes, but is not limited to, substances listed in 40 C.F.R. § 68.130.

16. "Extremely hazardous substances" also include substances which may not be listed or otherwise identified by any Government agency and which may, as the result of short-term exposures associated with releases to the air, cause death, injury or property damage due to their toxicity, reactivity, flammability, volatility, or corrosivity. The release of any substance which causes death or serious injury because of its acute toxic effect or as the result of explosion or fire or which causes substantial property damage by blast, fire, corrosion or other reaction would create a presumption that such substance is extremely hazardous. *See* S. Rep. No. 228, *reprinted in* 1990 U.S.C.C.A.N. at 3596.

17. The term "accidental release" is defined in CAA Section 112(r)(2)(A), 42 U.S.C. § 7412(r)(2)(A), to mean "an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source."

18. The term "stationary source" is defined in CAA Section 112(r)(2)(C), 42 U.S.C. § 7412(r)(2)(C), to mean, in pertinent part, "any buildings, structures, equipment, installations or substance emitting stationary activities . . . located on one or more contiguous properties . . . under the control of the same person, and from which an accidental release may occur."

B. CAA Section 112(r)(7) – Accident Prevention

19. Section 112(r)(7) provides, in pertinent part:

> (A) In order to prevent accidental releases of regulated substances, the Administrator is authorized to promulgate release prevention, detection, and correction requirements which may include monitoring, record keeping, reporting, training . . . , and other

design, equipment, work practice, and operational requirements.

* * * * *

> (B)(ii) The regulations under this subparagraph shall require the owner or operator of stationary sources at which a regulated substance is present in more than a threshold quantity to prepare and implement a risk management plan to detect and prevent or minimize accidental releases of such substances from the stationary source . . . in order to protect human health and the environment. Such plan shall provide for compliance with the requirements of this subsection.

20. Pursuant to 42 U.S.C. § 7412(r)(7), in 1992, the EPA promulgated regulations applicable to owners or operators of stationary sources at which regulated substances are present in more than threshold quantities. These regulations are published at 40 C.F.R. Part 68 and are referred to as the "Chemical Accident Prevention Provisions" or "Part 68 Regulations."

21. A "regulated substance" includes any substance listed in CAA Section 112(r)(3), 42 U.S.C. § 7412(r)(3). Also, pursuant to CAA Section 112(r)(3), 42 U.S.C. § 7412(r)(3), the EPA published lists of additional regulated substances and their threshold quantities in Tables 1, 2, 3 and 4, to 40 C.F.R. § 68.130.

22. "Process," is defined in 40 C.F.R. § 68.3 to mean "any activity involving a regulated substance, including any use, storage, manufacturing, handling, or on-site movement of such substances, or any combination of these activities."

23. "Covered process" means "a process that has a regulated substance present in more than a threshold quantity as determined under [40 C.F.R.] § 68.115." 40 C.F.R. § 68.3.

24. The Chemical Accident Prevention Provisions separate covered processes into three categories, designated as Program 1, Program 2, and Program 3. Each Program Level sets forth increasingly stringent accident prevention requirements for owners and operators of stationary sources with processes that fall within the respective programs.

25. A Program 3 covered process is subject to the most stringent risk management

requirements under the Chemical Accident Prevention Provisions. Pursuant to 40 C.F.R. § 68.12(d), the owner or operator of a stationary source with a covered process that is subject to the Program 3 prevention requirements must undertake certain tasks including, *inter alia*, implementing a program to prevent accidental releases from covered processes. Part 68 accident prevention program requirements include, among other things, the compilation of process safety information, performing a process hazard analysis, development and implementation of written operating procedures, training, management of change procedures, pre-startup safety review procedures, and a mechanical integrity program, as provided in 40 C.F.R. §§ 68.65-87.

C. CAA Enforcement Provisions

26. CAA Section 113(b) provides that whenever a person violates any requirement or prohibition of Subchapter I of the CAA (42 U.S.C. §§ 7401-7515), the Administrator of the EPA "shall . . . in the case of any . . . owner or operator of . . . a major stationary source . . . commence a civil action for a permanent or temporary injunction, or to assess and recover a civil penalty" of not more than $25,000 per day for each violation, or both . . . ." Pursuant to the Civil Monetary Penalty Inflation Adjustment Rule, 40 C.F.R. § 19.4, the maximum statutory penalty amount increased to $37,500 for violations occurring after January 12, 2009.

GENERAL ALLEGATIONS

27. At all times relevant to this Complaint, Defendant Williams, n/k/a NOVA Chemicals Olefins LLC was an "owner" and the "operator" of the Plant within the meaning of CAA Section 112(r), 42 U.S.C. § 7412(r), and within the meaning of the Chemical Accident Prevention Provisions.

28. The NOVA Chemicals Olefins Plant sits on an approximately 140-acre parcel of land. Dozens of businesses with hundreds of employees are located within a three-mile radius of the

Plant, and more than 15,000 residents live within a five-mile radius of the Plant.

29. The NOVA Chemicals Olefins Plant is a "stationary source" as defined in CAA Section 112(r)(2)(C), 42 U.S.C. § 7412(r)(2)(C) and 40 C.F.R. § 68.3.

30. At all times relevant to this Complaint, the NOVA Chemicals Olefins Plant produced, processed, handled, and stored "regulated substances" as defined in CAA Section 112(r)(2)(B), 42 U.S.C. § 7412(r)(2)(B), and as listed in 40 C.F.R. § 68.130, Tables 3 and 4, above a threshold quantity, including, but not limited to, the following regulated flammable substances: propylene, ethylene, 1,3 butadiene, and propane.

31. Propylene, ethylene, 1,3 butadiene, and propane are extremely hazardous substances within the meaning of CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1).

32. At all times relevant to this Complaint, the Propylene Production Unit at the Plant was a covered process within the meaning of 40 C.F.R. § 68.3 because it contained more than the threshold quantity of propylene, a regulated flammable substance, 40 C.F.R. § 68.130, Table 4. The reboilers, propylene fractionator, other nearby process units, and the piping systems transiting the Propylene Production Unit also contained the regulated flammable substances ethylene, 1,3 butadiene and propane, in more than threshold quantities.

33. At all times relevant to this Complaint, the Plant has been subject to the requirements of OSHA's PSM Standard, 29 C.F.R. § 1910.119 and is in NAICS code 32511.

34. At all times relevant to this Complaint, the Propylene Production Unit met the Program 3 eligibility requirements of 40 C.F.R. § 68.10(d), and was therefore subject to the Program 3 requirements referenced at 40 C.F.R. § 68.12(d).

35. At all times relevant to this Complaint, the Defendant was subject to the General Duty Clause of CAA Section 112(r)(1), regarding the prevention of "accidental releases" at the

Plant, as defined in CAA Section 112(r)(2)(A), 42 U.S.C. § 7412(r)(2)(A), and 40 C.F.R. § 68.3.

A. The Defendant's History of Changes to the Propylene Production Unit Reboilers and Process Safety Failures.

1. 2001

36. In January 2001, the Defendant changed the design of the Propylene Production Unit by installing manual inlet and outlet valves on the process piping and quench water piping to Reboilers EA-425A and EA-425B. These changes allowed for continuous operation of the Plant's propylene fractionator with only one reboiler in service at a time, by closing the manual process and quench water outlet valves on the reboiler to be taken out of service. The original design, *i.e.*, before the changes, required both reboilers to operate, sending "feed" to the propylene fractionator simultaneously. However, both reboilers would then also need to be shut down at the same time for maintenance, creating a bottleneck to the propylene fractionator.

37. 40 C.F.R. § 68.77 requires the owner or operator subject to the Part 68 Program 3 prevention requirements to perform a pre-startup safety review (PSSR) before starting up a new or modified stationary source. PSSRs are supposed to ensure that the appropriate "safety, operating, and emergency procedures are in place and are adequate," and that the "modified stationary sources meet the requirements contained in management of change, § 68.75" before introducing regulated substances to a process.

38. On February 1, 2001, the Defendant conducted a PSSR of Reboilers EA-425A and EA-425B, but failed to complete the PSSR checklist regarding whether pressure relief was provided to the reboilers, and whether the installed block valves were locked in an open position using a mechanical device called a "car seal" (car sealed open).

39. Pursuant to 40 C.F.R. § 68.75, the Defendant was required to perform a management of change (MOC) review to identify any hazards associated with the process change before

installing the manual inlet and outlet valves on the process piping and quench water piping at Reboilers EA-425A and EA-425B.

40. The Defendant performed the required MOC review on March 2, 2001, two months after the process change, but failed to identify hazards related to reboiler overpressurization.

41. 40 C.F.R. § 68.67(a) requires the owner or operator of a stationary source subject to the Part 68 Program 3 prevention requirements to perform a process hazard analysis (PHA) on covered processes to "identify, evaluate and control the hazards involved in the process."

42. The Defendant performed a PHA on the Propylene Production Unit in 2001, following the installation of the manual process valves to Reboilers EA-425A and EA-425B.

43. The 2001 PHA considered the consequence of closing the process outlet valves while the reboilers were operating but concluded that doing so would only result in a "low-severity process upset."

44. The 2001 PHA failed to identify the hazard of an overpressurization event resulting in a catastrophic failure of the reboilers.

45. 40 C.F.R. § 68.67(f) requires that the PHA be updated at least every five years after an initial hazard analysis.

2. 2006

46. Pursuant to 40 C.F.R. § 68.67, the Defendant performed a second "updated" PHA on the Propylene Production Unit in 2006.

47. The 2006 PHA team determined that Reboilers EA-425A and EA-425B lacked sufficient relief capabilities and could overpressurize, and recommended that thermal relief protection (*i.e.*, overpressure protection) be provided by locking open the manual outlet valve in the process line between each reboiler and the propylene fractionator so that the pressure relief

valves located on top of the connected propylene fractionator could ultimately provide overpressure protection for the reboilers. The 2006 PHA assumed simultaneous operation of Reboilers EA-425A and EA-425B.

48. At all times relevant to this Complaint, the Defendant failed to implement the 2006 PHA recommendation identified in paragraph 47.

3. 2010-2011

49. On January 22, 2010, the Defendant documented as "complete," the outstanding 2006 PHA directive to car seal open the manual outlet valve in the process line between each reboiler and the propylene fractionator in the Plant's PHA Action-Item Tracking System. The process outlet valve from Reboiler EA-425B, however, was closed and not locked open.

50. Pursuant to 40 C.F.R. § 68.67, the Defendant performed a third PHA on the Propylene Production Unit in September 2011. The report was called the "Process Hazard Analysis Study of the Plant's Acetylene, Propylene, Methyl Acetylene, Propadiene, and Ethylene Systems" (the 2011 PHA).

51. The 2011 PHA team incorrectly concluded that the manual outlet valves located on the process lines between Reboilers EA-425A and EA-425B and the propylene fractionator were car sealed open.

52. In conducting the 2011 PHA, the Defendant failed to perform a field verification to confirm the car seal open status of the manual process outlet valves on Reboilers EA-425A and EA-425B, instead relying on the January 22, 2010 notation to the Plant's Action-Item Tracking System that the valves were car sealed open.

53. At all times relevant to this Complaint, the Defendant failed to rectify the discrepancy between the Action-Item Tracking System's documentation and the actual equipment installed in

the field, and therefore, failed to ensure that Reboiler EA-425B was protected from an overpressure event such as occurred on June 13, 2013.

54. One June 9, 2011, Reboiler EA-425B was taken out-of-service (placed offline) and Reboiler EA-425A was put into service.

4. 2012

55. In February 2012, the Defendant performed maintenance work to repair the leaking "head" on Reboiler EA-425B. The Defendant's work-repair records indicate that prior to the repair to the "head," Plant workers drained quench water and flared-off propylene that had accumulated in the reboiler. After the repairs, the vessel was closed-in and remained out of service through the date of the Incident.

56. Between the 2012 maintenance work and the day of the Incident – a period of 16 months – flammable hydrocarbon liquids accumulated in Reboiler EA-425B.

57. After the February 2012 maintenance work, Reboiler EA-425B remained offline at all times, its manual inlet and outlet process valves in their closed position, leaving the reboiler isolated from the pressure relief system located on top of the propylene fractionator, and at risk of rupturing due to a thermal expansion of flammable hydrocarbon liquids in the reboiler.

B. Industry Codes and Standards

58. The Defendant's Energy Services, Engineering Standards, Revision E, Chapter 5.0, effective January 3, 2013, required overpressure protection to offline Reboiler EA-425B. *See* Document Number DG-5410, Revision E.

59. At the time of the Incident, the American Petroleum Institute (API) Standard 521, *Pressure-Relieving and Depressuring Systems* (API 521-2007, 5th Ed.) was the recognized and generally accepted good engineering practice for designing, operating and maintaining pressure

relieving and disposal systems.

60. According to API 521-2007, absent "administrative controls" a pressure-relief device is required where "closure of an outlet-block valve can result in overpressure" of a vessel. At the time of the Incident, Reboiler EA-425B lacked administrative controls.

61. The American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section VIII, provides requirements for pressure vessels, including requirements for overpressure protection.

C. The June 13, 2013 Incident

62. On June 13, 2013, Reboiler EA-425B, which was offline and isolated from pressure relief since June 9, 2011, was approximately 65% full of liquid propane mixed with other flammable hydrocarbon volatile organic compounds (VOCs). Because Reboiler EA-425B was supposed to be completely closed off from receiving process fluids by a block valve, it was supposed to be empty.

63. Reboiler EA-425B did not have a pressure gauge installed on its shell to allow for periodic monitoring. Such a gauge could have alerted Defendant's operations personnel of an unsafe increase in pressure on the vessel, and as an indicator that flammable hydrocarbon liquids had entered the reboiler. Because the Defendant had not installed instrumentation to detect process fluid within the offline reboiler and performed no inspections to determine whether it contained flammable hydrocarbon liquids, the Defendant was unaware that flammable hydrocarbon liquids had accumulated in Reboiler EA-425B.

64. On the morning of June 13, 2013, Plant operations personnel were troubleshooting reduced flow rates in the quench water circulation system in the Plant's Propylene Production Unit. The Defendant had no procedure, or alternatively no adequate procedure, for performing

this troubleshooting procedure. An employee, G. Scott Thrower (deceased), opened the quench water inlet and outlet valves to the offline Reboiler EA-425B, sending heated quench water into the vessel. Heat flux from the incoming quench water boiled the hydrocarbon material in Reboiler EA-425B causing it to expand. Because the process outlet valve on Reboiler EA-425B was closed, instead of locked open, there was no pathway to relieve the building pressure. Without proper overpressure protection, the reboiler quickly overpressurized leading to catastrophic failure. The ensuing explosion destroyed both reboilers and severely damaged the propylene fractionator, in turn, causing the reboilers and fractionator to lose containment and release their contents. The released substances, including propylene, ethylene, 1,3 butadiene, and propane, quickly ignited, setting off a massive fire that engulfed the Propylene Production Unit and other nearby infrastructure. The fire continued to burn for about four hours, only subsiding after the affected equipment and piping emptied their flammable contents.

65. Two employees were killed in the Incident and 167 workers sustained "injury," as that term is defined at 40 C.F.R. § 68.3.

66. The Incident also destroyed other nearby process equipment, as well as the piping and electrical systems transiting the Propylene Production Unit.

67. During the fire, extremely hazardous substances, including regulated flammable substances listed at 40 C.F.R. § 68.130 such as propylene, ethylene, 1,3 butadiene, and propane were released into the ambient air from the Plant. Federal and state investigators have estimated that approximately 23,089 pounds of propylene, 2,397 pounds of ethylene, thirty pounds of 1,3 butadiene, and about 34,000 pounds of propane mixed with other flammable hydrocarbon VOCs, were released into the atmosphere as a result of the Incident.

68. The release of these extremely hazardous substances, which included regulated

flammable substances, constituted an "accidental release" under CAA Section 112(r)(2)(A), 42 U.S.C. § 7413(r)(2)(A), and the Chemical Accident Prevention Provisions.

FIRST CLAIM FOR RELIEF
General Duty Clause – Failure to Identify Hazards
(42 U.S.C. § 7412(r)(1))

69. Plaintiff incorporates by reference paragraphs 1 through 68 of the Complaint.

70. Prior to, and on, June 13, 2013, the Defendant operated the Propylene Production Unit at the NOVA Chemicals Olefins Plant in violation of the General Duty Clause under CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1).

71. The Defendant violated CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1), by failing to identify hazards associated with not fully isolating Reboiler EA-425B from process operations, including the potential for flammable hydrocarbon liquids to enter into the reboiler while offline and out-of-service.

72. The risk of an accidental release associated with extremely hazardous substances, including regulated flammable substances, entering Reboiler EA-425B while it was offline was or should have been recognized by the Defendant.

73. The risk of an accidental release associated with extremely hazardous substances, including regulated flammable substances, entering into an offline vessel was a recognized hazard generally within the chemical manufacturing industry.

74. Feasible means existed by which the Defendant could have eliminated or reduced this hazard, including, for example, by installing a pressure gauge on the reboiler's shell to allow for periodic monitoring.

75. As a result of the Defendant's failure to identify such hazards, accidental releases of extremely hazardous substances, including the regulated flammable substances propylene,

ethylene, 1,3 butadiene and propane, occurred at the Propylene Production Unit at the Plant.

76. Pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), as amended, the Defendant is liable for the assessment of a civil penalty of up to $37,500 per day for each such violation.

SECOND CLAIM FOR RELIEF
General Duty Clause – Failure to Design and Maintain a Safe Facility
(42 U.S.C. § 7412(r)(1))

77. Plaintiff incorporates by reference paragraphs 1 through 68 of the Complaint.

78. Prior to, and on, June 13, 2013, the Defendant operated the Propylene Production Unit at the NOVA Chemicals Olefins Plant in violation of the General Duty Clause under CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1).

79. The Defendant violated CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1), by failing to design and maintain a safe facility and failing to take such steps as necessary to prevent accidental releases of extremely hazardous substances, including regulated flammable substances, by failing to prevent the accumulation of flammable hydrocarbon liquids in Reboiler EA-425B, and by failing to adequately resolve PHA recommendations to provide overpressure protection for Reboilers EA-425A and EA-425B.

80. The risk of an accidental release of extremely hazardous substances, including regulated flammable substances, caused by failing to prevent the accumulation of flammable hydrocarbon liquids in Reboiler EA-425B and/or failing to provide proper overpressure protection to Reboiler EA-425B was or should have been recognized by the Defendant.

81. The risk of an accidental release of extremely hazardous substances, including regulated flammable substances, caused by failing to prevent such substances from entering into an offline vessel like Reboiler EA-425B was a recognized hazard generally within the chemical manufacturing industry. The risk of an accidental release of extremely hazardous substances,

including regulated flammable substances, caused by failing to provide proper overpressure protection to a vessel like Reboiler EA-425B was also a recognized hazard generally within the chemical manufacturing industry.

82. Feasible means existed by which the Defendant could have eliminated or reduced this hazard, including, positively isolating Reboiler EA-425B from the Plant's process equipment through the use a blind flange or spectacle flange on the reboiler's inlet and outlet piping, the installation of a pressure gauge on the reboiler's shell to allow for periodic monitoring, and/or maintaining the process outlet valve to Reboiler EA-425B in the locked open position.

83. As a result of the Defendant's failures, accidental releases of extremely hazardous substances, including the regulated flammable substances, propylene, ethylene, 1,3 butadiene and propane, occurred in the Propylene Production Unit at the NOVA Chemicals Olefins Plant.

84. Pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), as amended, the Defendant is liable for the assessment of a civil penalty of up to $37,500 per day for each such violation.

THIRD CLAIM FOR RELIEF
General Duty Clause – Failure to Design and Maintain a Safe Facility
(42 U.S.C. § 7412(r)(1))

85. Plaintiff incorporates by reference paragraphs 1 through 68 of the Complaint.

86. Prior to, and on, June 13, 2013, the Defendant operated the Propylene Production Unit at the NOVA Chemicals Olefins Plant in violation of the General Duty Clause under CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1).

87. The Defendant violated CAA Section 112(r)(1), 42 U.S.C. § 7412(r)(1), by failing to design and maintain a safe facility taking such steps as are necessary to prevent releases of extremely hazardous substances, including regulated flammable substances, by failing to establish procedures, or alternatively adequate procedures, for troubleshooting problems related

to quench water flow to Reboilers EA-425A and EA-425B.

88. The hazard associated with the failure to establish written procedures for safely conducting temporary operations, *e.g.*, troubleshooting the quench water system, was recognized by the chemical manufacturing industry and/or should have been recognized by the Defendant.

89. Feasible means existed by which the Defendant could have eliminated or reduced this hazard, including for example, developing and implementing written operating procedures that provide clear instructions for safely conducting troubleshooting activities during temporary operations, such as requiring that the contents of a vessel and/or the status of its overprotection be verified before commencing the flow of quench water to it.

90. As a result of the Defendant's failure, accidental releases of extremely hazardous substances, including the regulated flammable substances, propylene, ethylene, 1,3 butadiene and propane occurred at the Propylene Production Unit at the NOVA Chemicals Olefins Plant.

91. Pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), as amended, the Defendant is liable for the assessment of a civil penalty of up to $37,500 per day for each such violation.

FOURTH CLAIM FOR RELIEF
Process Hazard Analysis - Findings
(40 C.F.R. § 68.67(e))

92. Plaintiff incorporates by reference paragraphs 1 through 68 of the Complaint.

93. Pursuant to 40 C.F.R. § 68.67(e), the Defendant was required to establish a system to promptly address any PHA findings, promptly resolve any recommendations made, and document their resolution in the Plant's PHA Action-Item Tracking System.

94. In September 2011, the Defendant conducted a Process Hazard Analysis Study of the Plant's Acetylene, Propylene, Methyl Acetylene, Propadiene, and Ethylene Systems, which resulted in sixteen findings and recommendations. On and before June 13, 2013, there was no

mention in the Plant's PHA Action-Item Tracking System documenting the responsibility, status, estimated end, or resolution to the sixteen findings and recommendations made in the PHA.

95. The Defendant's failure to document the PHA findings and recommendations constitutes a violation of 40 C.F.R. § 68.67(e) and CAA Section 112(r)(7), 42 U.S.C. § 412(r)(7). Subject to a reasonable opportunity for investigation or discovery, the Defendant's failure to resolve all of the PHA findings and recommendations in a timely manner and complete them as soon as possible constitutes a violation of 40 C.F.R. § 68.67(e) and CAA Section 112(r)(7), 42 U.S.C. § 7412(r)(7).

96. Pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), as amended, the Defendant is liable for the assessment of a civil penalty of up to $37,500 per day for each such violation.

FIFTH CLAIM FOR RELIEF
Operating Procedures
(40 C.F.R. § 68.69(a)(iii))

97. Plaintiff incorporates by reference paragraphs 1 through 68 of the Complaint.

98. Pursuant to 40 C.F.R. § 68.69(a) the Defendant was required to "develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information . . . ."

99. 40 C.F.R. § 68.69(a)(iii), requires the Defendant to develop written procedures for safely conducting "temporary operations" at the Propylene Production Unit.

100. Contrary to the regulations, the Defendant failed to establish written operating procedures for troubleshooting the quench water circulation system in the Propylene Production Unit, a temporary operation.

101. The Defendant's failure to establish written operating procedures for trouble-shooting the quench water circulation-loop constitutes a violation of 40 C.F.R. § 68.69(a)(iii),

and CAA Section 112(r)(7), 42 U.S.C. § 7412(r)(7).

102. Pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), as amended, the Defendant is liable for the assessment of a civil penalty of up to $37,500 per day for each such violation.

SIXTH CLAIM FOR RELIEF
Employee Training
(40 C.F.R. § 68.71(c))

103. Plaintiff incorporates by reference paragraphs 1 through 68 of the Complaint.

104. Pursuant to 40 C.F.R. § 68.71(b) every employee involved in operating a process must undergo "refresher training" at least every three years to "assure that the employee understands and adheres to the current operating procedures of the process."

105. Pursuant to 40 C.F.R. § 68.71(c) the Defendant was required to "ascertain that each employee involved in operating a process has received and understood the training required" under Part 68, and thereafter, document "the identity of employee, the date of training, and the means used to verify that the employee understood the training."

106. Subject to a reasonable opportunity for investigation and discovery, at all times relevant to the Complaint, the Defendant's employee, Mr. Thrower, was involved in operating Reboiler EA-425B and its quench water system, but did not receive any required refresher training since he was first trained to operate Reboiler EA-425B and its quench water system in November 1992.

107. Contrary to the regulations, the Defendant failed to ascertain and document in the appropriate personnel files whether Mr. Thrower had received and understood the required "refresher training" necessary to operate Reboiler EA-425B's quench water system in the twenty-one years since he was first trained in November 1992.

108. The Defendant's failure to comply with the training and documentation

requirements with regard to Mr. Thrower, constitutes a violation of 40 C.F.R. § 68.71(b) and (c), and CAA Section 112(r)(7), 42 U.S.C. § 7412(r)(7).

109. Pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), as amended, the Defendant is liable for the assessment of a civil penalty of up to $37,500 per day for each such violation.

SEVENTH CLAIM FOR RELIEF
Mechanical Integrity
(40 C.F.R. § 68.73(d)(1) & (4))

110. Plaintiff incorporates by reference paragraphs 1 through 68 of the Complaint.

111. Pursuant to 40 C.F.R. § 68.73(a), the owner or operator must establish and implement mechanical integrity procedures for, *inter alia*, pressure vessels, piping systems, relief systems and controls. Pursuant to 40 C.F.R. § 68.73(d), the owner or operator must perform inspections and tests of such process equipment using generally accepted good engineering practices, and thereafter, document each inspection and test with specific details.

112. Pursuant to 40 C.F.R. § 68.73(d)(1) the Defendant was required to perform inspections and tests on Reboiler EA-425A to ensure its mechanical integrity.

113. Pursuant to 40 C.F.R. § 68.73(d)(4) the Defendant was required to "document each inspection and test that has been performed on process equipment" and "identify the date of the inspection or test, the name of the person who performed the inspection or test . . . a description of the inspection or test performed, and the results of the inspection or test."

114. On October 10, 2010, the Defendant started to perform a required mechanical integrity inspection on Reboiler EA-425A to measure the vessel's metal thickness at pre-determined inspection test points 1 through 42. The Defendant indicated in an inspection report dated October 12, 2010, that only inspection test points 29 through 42 were completed. The Defendant failed to perform the required metal thickness inspection at test points 1 through 28.

115. Contrary to the regulations, the Defendant recorded the required metal thickness inspection for all 42 test points on Reboiler EA-425A as "completed" in the Plant's Action-Item Tracking System when the inspection report indicated that the metal thickness inspection of test points 1 through 28 had not been performed. The required mechanical integrity test remained incomplete as of June 13, 2013, when the reboiler was destroyed in the Incident.

116. The Defendant's failures constitute violations of 40 C.F.R. § 68.73(d)(1) and (4), and CAA Section 112(r)(7), 42 U.S.C. § 7413(r)(7).

117. Pursuant to CAA Section 113(b), 42 U.S.C. § 7413(b), as amended, the Defendant is liable for the assessment of a civil penalty of up to $37,500 per day for each such violation.

PRAYER FOR RELIEF

WHEREFORE, the United States respectfully requests that this Court:

1. Enter judgement in favor of the United States and against Defendant, Williams Olefins, LLC, n/k/a NOVA Chemicals Olefins LLC.

2. Assess civil penalties against Defendant Williams Olefins, LLC, n/k/a NOVA Chemicals Olefins LLC, in an amount of up to $37,500 per day for each violation of the CAA.

3. Award the United States its costs and expenses incurred in this action; and

4. Grant the United States such other relief as the Court deems just and proper.

Respectfully submitted,

Bruce S. Gelber
Deputy Assistant Attorney General
Environment and Natural Resources Division
United States Department of Justice

Dated: 7-11-2019

Karen Dworkin
Deputy Chief
Environmental Enforcement Section
United States Department of Justice

Dated: 7-11-2019

Kirk W. Koester
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Environment and Natural Resources Division
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Dated: 7/16/2019

By:

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JS 44 (Rev. 02/19)

CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. *(SEE INSTRUCTIONS ON NEXT PAGE OF THIS FORM.)*

I. (a) PLAINTIFFS

UNITED STATES OF AMERICA

(b) County of Residence of First Listed Plaintiff _____
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorneys *(Firm Name, Address, and Telephone Number)*
Kirk Koester, U.S. DOJ/ENRD/EES, P.O. Box 7611, Wash., D.C. 20044, Ph: 202-514-9009; John Gaupp, Assistant United States Attorney, 777 Florida Street, Suite 208, Baton Rouge, LA 70801, Ph: 225-336-8852

DEFENDANTS

WILLIAMS OLEFINS, LLC, n/k/a NOVA CHEMICALS OLEFINS LLC

County of Residence of First Listed Defendant Ascension Parish
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE TRACT OF LAND INVOLVED.

Attorneys *(If Known)*
Peter Modlin, Esq., Gibson, Dunn & Crutcher LLP, 555 Mission Street, San Francisco, CA 94105-0921, Ph: (415) 393-8392

II. BASIS OF JURISDICTION *(Place an "X" in One Box Only)*

- ☒ 1 U.S. Government Plaintiff
- ☐ 2 U.S. Government Defendant
- ☐ 3 Federal Question *(U.S. Government Not a Party)*
- ☐ 4 Diversity *(Indicate Citizenship of Parties in Item III)*

III. CITIZENSHIP OF PRINCIPAL PARTIES *(Place an "X" in One Box for Plaintiff and One Box for Defendant)*
(For Diversity Cases Only)

	PTF	DEF		PTF	DEF
Citizen of This State	☐ 1	☐ 1	Incorporated *or* Principal Place of Business In This State	☐ 4	☐ 4
Citizen of Another State	☐ 2	☐ 2	Incorporated *and* Principal Place of Business In Another State	☐ 5	☐ 5
Citizen or Subject of a Foreign Country	☐ 3	☐ 3	Foreign Nation	☐ 6	☐ 6

IV. NATURE OF SUIT *(Place an "X" in One Box Only)*

Click here for: Nature of Suit Code Descriptions.

CONTRACT
- ☐ 110 Insurance
- ☐ 120 Marine
- ☐ 130 Miller Act
- ☐ 140 Negotiable Instrument
- ☐ 150 Recovery of Overpayment & Enforcement of Judgment
- ☐ 151 Medicare Act
- ☐ 152 Recovery of Defaulted Student Loans (Excludes Veterans)
- ☐ 153 Recovery of Overpayment of Veteran's Benefits
- ☐ 160 Stockholders' Suits
- ☐ 190 Other Contract
- ☐ 195 Contract Product Liability
- ☐ 196 Franchise

REAL PROPERTY
- ☐ 210 Land Condemnation
- ☐ 220 Foreclosure
- ☐ 230 Rent Lease & Ejectment
- ☐ 240 Torts to Land
- ☐ 245 Tort Product Liability
- ☐ 290 All Other Real Property

TORTS

PERSONAL INJURY
- ☐ 310 Airplane
- ☐ 315 Airplane Product Liability
- ☐ 320 Assault, Libel & Slander
- ☐ 330 Federal Employers' Liability
- ☐ 340 Marine
- ☐ 345 Marine Product Liability
- ☐ 350 Motor Vehicle
- ☐ 355 Motor Vehicle Product Liability
- ☐ 360 Other Personal Injury
- ☐ 362 Personal Injury - Medical Malpractice

PERSONAL INJURY
- ☐ 365 Personal Injury - Product Liability
- ☐ 367 Health Care/ Pharmaceutical Personal Injury Product Liability
- ☐ 368 Asbestos Personal Injury Product Liability

PERSONAL PROPERTY
- ☐ 370 Other Fraud
- ☐ 371 Truth in Lending
- ☐ 380 Other Personal Property Damage
- ☐ 385 Property Damage Product Liability

CIVIL RIGHTS
- ☐ 440 Other Civil Rights
- ☐ 441 Voting
- ☐ 442 Employment
- ☐ 443 Housing/ Accommodations
- ☐ 445 Amer. w/Disabilities - Employment
- ☐ 446 Amer. w/Disabilities - Other
- ☐ 448 Education

PRISONER PETITIONS

Habeas Corpus:
- ☐ 463 Alien Detainee
- ☐ 510 Motions to Vacate Sentence
- ☐ 530 General
- ☐ 535 Death Penalty

Other:
- ☐ 540 Mandamus & Other
- ☐ 550 Civil Rights
- ☐ 555 Prison Condition
- ☐ 560 Civil Detainee - Conditions of Confinement

FORFEITURE/PENALTY
- ☐ 625 Drug Related Seizure of Property 21 USC 881
- ☐ 690 Other

LABOR
- ☐ 710 Fair Labor Standards Act
- ☐ 720 Labor/Management Relations
- ☐ 740 Railway Labor Act
- ☐ 751 Family and Medical Leave Act
- ☐ 790 Other Labor Litigation
- ☐ 791 Employee Retirement Income Security Act

IMMIGRATION
- ☐ 462 Naturalization Application
- ☐ 465 Other Immigration Actions

BANKRUPTCY
- ☐ 422 Appeal 28 USC 158
- ☐ 423 Withdrawal 28 USC 157

PROPERTY RIGHTS
- ☐ 820 Copyrights
- ☐ 830 Patent
- ☐ 835 Patent - Abbreviated New Drug Application
- ☐ 840 Trademark

SOCIAL SECURITY
- ☐ 861 HIA (1395ff)
- ☐ 862 Black Lung (923)
- ☐ 863 DIWC/DIWW (405(g))
- ☐ 864 SSID Title XVI
- ☐ 865 RSI (405(g))

FEDERAL TAX SUITS
- ☐ 870 Taxes (U.S. Plaintiff or Defendant)
- ☐ 871 IRS—Third Party 26 USC 7609

OTHER STATUTES
- ☐ 375 False Claims Act
- ☐ 376 Qui Tam (31 USC 3729(a))
- ☐ 400 State Reapportionment
- ☐ 410 Antitrust
- ☐ 430 Banks and Banking
- ☐ 450 Commerce
- ☐ 460 Deportation
- ☐ 470 Racketeer Influenced and Corrupt Organizations
- ☐ 480 Consumer Credit
- ☐ 485 Telephone Consumer Protection Act
- ☐ 490 Cable/Sat TV
- ☐ 850 Securities/Commodities/ Exchange
- ☐ 890 Other Statutory Actions
- ☐ 891 Agricultural Acts
- ☒ 893 Environmental Matters
- ☐ 895 Freedom of Information Act
- ☐ 896 Arbitration
- ☐ 899 Administrative Procedure Act/Review or Appeal of Agency Decision
- ☐ 950 Constitutionality of State Statutes

V. ORIGIN *(Place an "X" in One Box Only)*

☒ 1 Original Proceeding ☐ 2 Removed from State Court ☐ 3 Remanded from Appellate Court ☐ 4 Reinstated or Reopened ☐ 5 Transferred from Another District *(specify)* ☐ 6 Multidistrict Litigation - Transfer ☐ 8 Multidistrict Litigation - Direct File

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing *(Do not cite jurisdictional statutes unless diversity)*:
Clean Air Act (CAA), 42 U.S.C. §§ 7412(r)(1), 7412(r)(7) and 7413(b)(2)

Brief description of cause:
Violations of CAA 42 U.S.C. § 7412(r)(1) & (r)(7) and Chem. Accident Prevention Provisions at 40 C.F.R. Part 68

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A **CLASS ACTION** UNDER RULE 23, F.R.Cv.P.

DEMAND $

CHECK YES only if demanded in complaint:
JURY DEMAND: ☐ Yes ☒ No

VIII. RELATED CASE(S) IF ANY

(See instructions): JUDGE _____ DOCKET NUMBER _____

DATE 07/12/2019

SIGNATURE OF ATTORNEY OF RECORD Kirk W. Koester

FOR OFFICE USE ONLY

RECEIPT # _____ AMOUNT _____ APPLYING IFP _____ JUDGE _____ MAG. JUDGE _____